



**Presentation to NC Home Inspectors Licensure  
Board—  
April 7, 2017**



**Opportunities and Partnerships**



# Radon Basics



# Radon Basics

**Radon is the leading environmental cause of lung cancer**

**Source of radon is the decay of uranium**

**All residential building types are subject to elevated radon levels**

**Construction materials may contain uranium and thus could be the source of elevated radon levels in a building**



# Levels of Risk

## RADON RISK IF YOU'VE NEVER SMOKED

Radon Level	If 1,000 people who never smoked were exposed to this level over a lifetime* . . .	The risk of cancer from radon exposure compares to** . . .	WHAT TO DO:
20 pCi/L	About 36 people could get lung cancer	◀ 35 times the risk of drowning	Fix your home
10 pCi/L	About 18 people could get lung cancer	◀ 20 times the risk of dying in a home fire	Fix your home
8 pCi/L	About 15 people could get lung cancer	◀ 4 times the risk of dying in a fall	Fix your home
4 pCi/L	About 7 people could get lung cancer	◀ The risk of dying in a car crash	Fix your home
2 pCi/L	About 4 people could get lung cancer	◀ The risk of dying from poison	Consider fixing between 2 and 4 pCi/L
1.3 pCi/L	About 2 people could get lung cancer	(Average indoor radon level)	(Reducing radon levels below
0.4 pCi/L		(Average outdoor radon level)	2 pCi/L is difficult)



# Radon

## *Testing and mitigation*

**No “safe” level of radon**

**Mitigation is strongly recommended when average level is at or greater than 4 picoCuries per liter of air**

**Recommended that testing and mitigation be performed by a certified radon professional (NRSB or NRPP)**

**Short term kit or Continuous Radon Monitor (CRM preferred)**

**Average cost of testing is \$150**

**Average cost of mitigation is \$1,500**



# About the NC Radon Program



# NC Radon Program

*Overview of Radon Education Program*

**Educational program only – non-regulatory**

**Funded 100% by US EPA**

**Audiences: Real Estate Brokers, Medical Providers, Builders, Home Owners**

**Projects: Presentations, Printed Materials, Test Kit Distribution**

**Partnerships: NC Cancer Prevention & Control Branch, Duke University Cancer Institute, Land of Sky Board of REALTORS, CDC, EPA**



# NC Radon Program

**In NC, there are currently no rules requiring radon mitigators to be certified or to adhere to standards and protocols developed by AARST-ANSI for mitigation of homes. Additionally, there are currently no rules in NC which require disclosure or inspection of these systems.**

**Promote testing for radon within buildings**

**Empower North Carolinians with information that assists them in choosing to mitigate**

**Provide North Carolinians with guidance to assist with mitigation efforts**

**Elevated radon levels are found statewide (NC)**





# Presence of Elevated Radon Levels

*Statewide Distribution of Elevated Radon Levels*



# Mitigation Basics



# Mitigation System Basics

*In North Carolina*

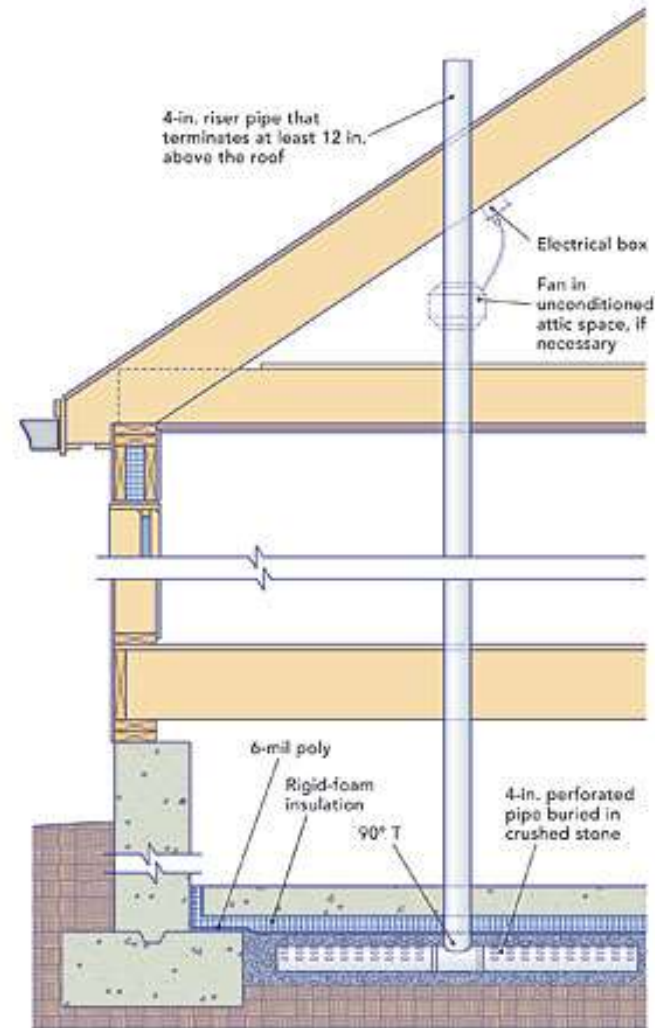
- Frequency of radon mitigation maintenance is unknown
- Unknown number of mitigation systems installed over past 20 years
- Fans generally have a 5 year warranty
- Maintenance should be managed by a certified radon mitigator



# Passive Mitigation System Basics

## *Installation*

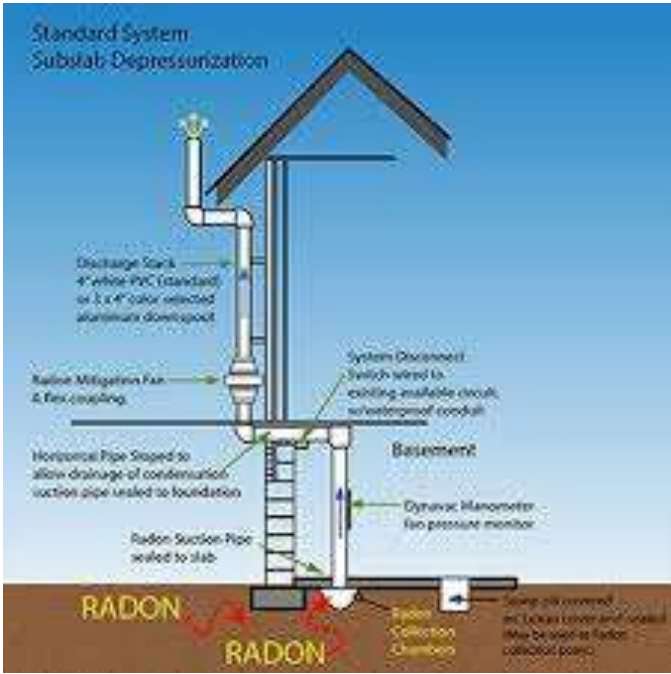
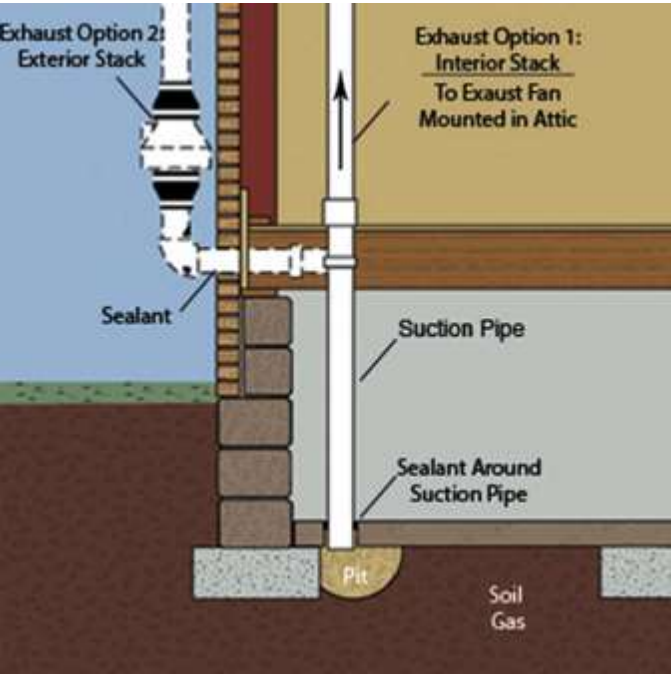
- Typically installed during new construction
- Recommend installation by certified professional (NRPP or NRSB)



# Active Mitigation System Basics

## Installation

- Recommend installation by certified professional (NRPP or NRSB)



# Partnerships



# Partnerships

- **North Carolina Advisory Committee on Cancer Coordination and Control**
- **Duke University/Health**
- **NC Cancer Prevention and Control Branch**
- **NC REC**



# Opportunities

- **Educate home inspectors about radon mitigation systems**
- **Educate home inspectors on how to assess the mechanics of existing radon mitigation systems**
- **Educate home inspectors to advise clients on how and who to follow up with**
- **Education fits into the .1024 COURSE REQUIREMENTS**
  - Electrical
  - Plumbing
  - Ventilation





# NOT REQUESTING

## **.1105 GENERAL EXCLUSIONS**

- **Determine the presence or absence of any suspected adverse environmental condition or hazardous substance, including toxins, carcinogens, noise, contaminants in the building or in soil, water, and air;**
- **Determine the effectiveness of any system installed to control or remove suspected hazardous substances;**



# Opportunities

- **Educate home inspectors about radon mitigation systems**
- **Educate home inspectors on how to assess the mechanics of existing radon mitigation systems**
- **Educate home inspectors to advise clients on how and who to follow up with**
- **.1024 COURSE REQUIREMENTS**
  - Electrical
  - Plumbing
  - Ventilation



# For More Information:

- **Contact Info:**

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- 828.712.0972





# Actions of Other States

- **Real Estate Disclosure:** This type of regulation requires sellers to disclose high levels of radon during a real estate transaction, usually on a prescribed form. This is the only type of radon regulation in NC. States with General Statutes Requiring (31): AK, CA, CO, CT, DE, DC, IL, IN, IA, KS, KY, ME, MD, MI, MN, MS, MT, NE, NY, NJ, NY, NC, OH, OK, OR, PA, RI, SC, SD, TX, WI
- **Landlords Must Test and/or Disclose Radon Levels to Tenants (2):** IL, ME



# Actions of Other States

- **Certification Requirements:** This type of regulation requires that individuals take and pass a nationally recognized proficiency exam on radon testing and/or radon mitigation in order to be able to operate in the state. Some states have additional state requirements.
- **States with General Statute Requiring (21):** CA, CT, DC, FL, IL, IN, IA, KS, KY, ME, MD, NE, NH, NJ, NY, OH, PA, RI, UT, VA, WV



# Actions of Other States

- **Reporting Requirements:** This type of regulation requires radon mitigators (and sometimes radon testers) to report the location of all radon mitigation systems (or tests) installed or conducted in the state to the designated state office.
- **States with General Statutes Requiring (4):** IL, IA, KS, NY



# Actions of Other States

- **Radon-Resistant New Construction (RRNC):** This type of regulation requires that building codes include RRNC techniques.
- **States with General Statutes Requiring (12):** CA, CT, FL, IL, ME, MD, MA, MI, MN, NJ, OR, RI.

